

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 99.28**WELDING INSPECTION REPORT****Resident Engineer:**Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-024072**Date Inspected:** 27-May-2011**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC) Chanxing Island**Location:** Shanghai, China**CWI Name:** Mr. Shi Lei**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG Segment**Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance Inspector (QA), Vibin Kumar Selvanayaham, was present during the times noted above for observations relative to the work being performed.

Ultrasonic Testing (UT) – NWIT Document No: 009272

This QA inspector performed UT of approximately 10% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated an UT report for this date. The members are identified as OBG Segment 13AW. The weld designations reviewed are as follows:

1. SEG3013AX-215, 218, 211, 214

OBG Trail Assembly Yard

This QA Inspector observed the following work in progress:

Flux Core Arc Welding (FCAW) welding of weld joint SEG3014S-066 located on k-plate RS stiffener at panel point 120.5 to 121 FL1 side of OBG Segment 13BW. ZPMC Welder is identified as 066825. ZPMC Quality Control (QC) is identified as Mr. Shi Lei. The welding variables recorded by QC appeared to comply with the Applicable WPS-B-T-2131-ESAB.

Shielded Metal Arc Welding (SMAW) welding of weld joint SEG3014N-056 located on Side plate RS Stiffener to

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Floor Beam at panel point 121 to 121.5 of OBG Segment 13BW. ZPMC Welder is identified as 066734. ZPMC Quality Control (QC) is identified as Mr. Shi Lei. The welding variables recorded by QC appeared to comply with the Applicable WPSB-P-2214-B-U2-FCM-1.

SMAW welding of weld joint SEG3014L-085, 086, 081 and 082 located on Longitudinal Diaphragm RS Stiffener at panel point 121 to 121.5 of OBG Segment 13BW. ZPMC Welder is identified as 066687. ZPMC Quality Control (QC) is identified as Mr. Shi Lei. The welding variables recorded by QC appeared to comply with the Applicable WPS-B-P-2112/4-FCM-1.

ZPMC personnel performing heat straightening on longitudinal diaphragm at panel point 122 to 122.5 of OBG Segment 13B/CW. Distortion appeared to be caused by mishandling of the welding/material. ZPMC Quality Control (QC) inspector identified as Mr. Sun Tian Liang was present to monitor the heat straightening process. The heat straightening appeared to comply with HSR1 (B) number 10383.

SMAW welding of weld joint DP3135-001-030 and DP3148-001-241 located on deck panel to deck panel longitudinal diaphragm at panel point 122 to 122.5 of OBG Segment 13B/CW. ZPMC Welder is identified as 066156. ZPMC Quality Control (QC) is identified as Mr. Shi Lei. The welding variables recorded by QC appeared to comply with the Applicable WPS-345-SMAW-4G-(4F)-FCM-Repair-1, which is used as per Welding Repair Report (WRR) B-WRR-21033.

SMAW welding of weld joint DP3146-001-241 and DP3133-001-030 located on deck panel to deck panel longitudinal diaphragm at panel point 122 to 122.5 of OBG Segment 13B/CW. ZPMC Welder is identified as 067947. ZPMC Quality Control (QC) is identified as Mr. Shi Lei. The welding variables recorded by QC appeared to comply with the Applicable WPS-345-SMAW-4G-(4F)-FCM-Repair-1, which is used as per Welding Repair Report (WRR) B-WRR-21033.

SMAW welding of weld joint SEG3020E-076 located on Floor Beam RS Stiffener to SA3416 at panel point 128.3 of OBG Segment 14W. ZPMC Welder is identified as 067572. ZPMC Quality Control (QC) is identified as Mr. Zhu Lin. The welding variables recorded by QC appeared to comply with the Applicable WPS-B-P-2214-Tc-U4b-FCM-1.

SMAW welding of weld joint SEG3020E-091 located on Floor Beam RS Stiffener to SA3416 at panel point 128.3 of OBG Segment 14W. ZPMC Welder is identified as 069118. ZPMC Quality Control (QC) is identified as Mr. Zhu Lin. The welding variables recorded by QC appeared to comply with the Applicable WPS-B-P-2214-Tc-U4b-FCM-1.

Visual Inspection after Blast – Trail Assembly Yard

OBG Segment 13AE

This QA Inspector performed a preliminary random visual inspection on OBG Segment 13AE, after the grit blast of the interior components of the deck panel, floor beams and corner assemblies of this segment. The panel point is identified as PP118 to 119-1500 at cross beam side of OBG Segment 13AE. Areas of visual weld defects that will

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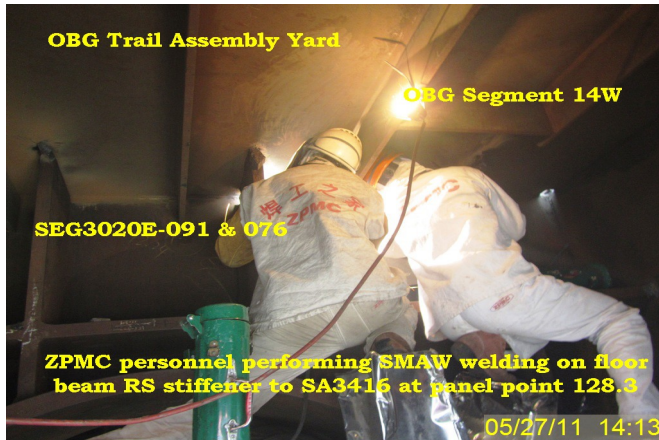
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require welding were taped and will be repaired after the coating is applied. ZPMC QC personnel are aware of these areas and were present during the inspection. See the attached picture.

Unless otherwise noted, all work observed on this date appeared to be in general compliance with the applicable contract documents.



### Summary of Conversations:

Only general conversation was held between QA and QC concerning this project.

### Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact , who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Kumar,Vibin	Quality Assurance Inspector
<b>Reviewed By:</b>	Patel,Hiranch	QA Reviewer

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